



Care Management Solution Integrates Clinical Records and Enhances Healthcare

Overview

Country or Region: New Zealand

Industry: Healthcare - Healthcare,
Healthcare Providers

Customer Profile

Mangere Community Health Trust (MCHT) is a non-profit Trust established to provide primary healthcare services to the Mangere community in Auckland, New Zealand.

Business Situation

MCHT wanted an electronic shared care management system to manage the care of patients with long term conditions.

Solution

MCHT deployed the Collaborative Care Management Solution (CCMS), a web-based, integrated health record and clinical case management solution, which was built using Windows Server® 2003, Microsoft® SQL Server® 2005, and Microsoft® ASP.NET.

Benefits

- Delivers integrated care
- Encourages patient self-care
- Improves mobile healthcare

“With CCMS, we have a collaborative system that allows different healthcare providers to communicate. We can share key patient information and observations, and deliver a more well-rounded care plan.”

Michael Lamont, Chairman, Mangere Community Health Trust

Mangere Community Health Trust (MCHT) is a non-profit organization established in 1992 that provides primary healthcare services to the Mangere community in Auckland, New Zealand. MCHT's integrated family health centers previously only used a Family Physician (FP) Practice Management System (PMS) to record clinical notes by and for FPs. The software, however, did not provide or facilitate communication between the broader multi-disciplinary health provider team and could not be accessed by mobile health providers. With the help of Microsoft® Certified Partner HSAGlobal, MCHT deployed the Collaborative Care Management Solution (CCMS), a unified electronic system that manages longitudinal medical records and care management for patients with long-term conditions. As a result, MCHT can deliver better patient care, encourage patient self-care, and enhance mobile healthcare.



Situation

The Mangere Community Health Trust (MCHT) was formed in 1992 and, together with its sister organization the Mangere Health Resources Trust, plays a central role in the management and delivery of primary health services in Mangere, a suburb of Auckland, New Zealand. MCHT has 40 employees and runs four integrated family health centers (polyclinics) around Mangere.

MCHT is a non-profit Trust established to provide services to its local population, which has a critical need for community-based services. Mangere has a large number of residents within a lower socio-economic group who have escalating health needs and a high prevalence of chronic illness. The Trust's polyclinics were successfully using a recognized Family Physician (FP) Practice Management System (PMS) developed in New Zealand to deal with daily FP workflows and patient encounters. The primary task of the PMS is to record clinical notes taken by FPs and manage the FP practice, which includes scheduling and billing. However, the software was not designed to provide integrated care and information access across different health providers or to manage patients with long-term conditions.

"In order for a chronically ill patient to be properly cared for, there must be a common platform and information flow for primary care providers, such as MCHT, and secondary care providers, such as hospitals, to coordinate their efforts and share patient information. Patients with long term conditions also play a critical role in managing their illness and need to be an active part of the overall care team," says Michael Lamont, Chairman, Mangere Community Health Trust.

The constraints of the FP PMS meant that healthcare providers outside of the FP practice were not able to easily access patient health records. Similarly, requests for information such as hospital test results take a week on average to be delivered in hardcopy form. This means that FPs may not have the correct information to hand at the point of care, resulting in the risk of dispensing incorrect or duplicated medical treatment to patients.

The FP PMS was also unable to support MCHT's mobile health services, such as its podiatry, dietician, and mental health services which operate throughout Mangere. Patient health records are paper-based and need to be recorded on the move and filed later. As a result, patient records were not kept up-to-date or filed accurately.

MCHT sought a system that could manage the longitudinal medical records and care plans of patients, chronicling a patient's diseases, major and minor illnesses, and other key health information to give clinicians shared and up-to-date information on patient medical history and provide insight into current clinical management wherever and whenever they were needed. Lamont comments, "We knew we needed to implement a Web-based electronic medical record and care management solution as soon as possible, to quickly improve communication between health providers, increase patient involvement, and boost patient care."

Solution

Lamont and his team chose to work with Microsoft® Certified Partner HSAGlobal, selecting them in March 2009. HSAGlobal quickly deployed their

Collaborative Care Management Solution (CCMS), an “on demand” (Software as a Service) integrated health record and clinical case management solution, to shore up the Trust’s clinical software capabilities for managing patients with long term conditions.

Built on Windows Server® 2003, Microsoft® SQL Server® 2005, and Microsoft® ASP.NET, CCMS is a Web-based product designed to support an integrated care delivery system for organizations like MCHT. “The health sector worldwide needs to enhance shared care management along the continuum of care for chronically ill patients to improve care and drive down costs. CCMS is designed to support the delivery of integrated care between primary and secondary-based caregivers and the patients they care for,” explains Matt Hector-Taylor, President and CEO, HSAGlobal.

A patient is enrolled in a customer-configurable program of care in CCMS (e.g. diabetes, heart failure, mental health), either from a polyclinic such as at MCHT’s or from secondary care providers. Once enrolled, authorized caregivers such as physicians, nurses, allied health workers and pharmacists, from anywhere along the continuum of care, are able to input and access clinical notes, specialist assessments, test results, and prescribed medications within a shared multi-disciplinary care plan.

At MCHT, CCMS is integrated into MCHT’s existing FP PMS system to improve the workflow for physicians. Integration between the two systems is two-way, delivered through Web Services (leveraging the CCMS Services Oriented Messaging Centre) and is based on HL7 Messaging with New Zealand

standard format XML files (GP2GP). FPs using their primary practice PMS can automatically register a patient in CCMS and refer them into a program of care, transferring patient demographics and clinical information – alerts, medications, diagnosis, measurements and results. FPs launch CCMS in patient context to manage care in CCMS for patients with long-term conditions. Clinical data is written back to the PMS, as is the handover of care to and from hospitals.

CCMS is available both on-line and off-line to support mobile care providers who travel to patients and between other care givers. The information entered into CCMS through a mobile device is automatically updated to the main database when the device is synchronized.

As key contributors to their own care, patients can also access their personal health records through a Patient Portal in CCMS. Information such as their health measurements and results, and prescribed medications can be viewed by patients. The portal allows patients to input elements from their own health records, track and complete tasks from their care plan, and interact with care providers. Case Managers and other clinicians can monitor task completion and results, and intervene as required.

The business intelligence features of SQL Server 2005 help CCMS to provide a range of configurable and automatic reports, which are used by MCHT to study trends in local health statistics. “Now that MCHT is able to track activity and outcomes outside of the FP Practice into the community and even into the patient’s home, the opportunities for enhanced population and quality data are enormous” says Lamont.

MCHT staff work closely with HSAGlobal in the configuration of the solution to meet their needs, and are kept up to date with the solution's development. HSAGlobal delivered train-the-trainer sessions to MCHT clinicians and administrators, who in turn train end-users on operating the solution. "CCMS uses an intuitive Microsoft-based user interface, leveraging components of Microsoft Common User Interface. "The learning curve for staff is considerably reduced," comments Hector-Taylor.

Benefits

The introduction of CCMS has brought about a paradigm shift in the way the polyclinic team works together in Mangere and with other providers. The solution helps MCHT deliver integrated care to patients, encourage patient self-care, and improves the delivery of mobile healthcare.

Delivers Integrated Care

By using a comprehensive system to manage patients' longitudinal health records and care management, MCHT can deliver better quality services and care for patients. With a single patient record to update and reference, correct treatment and medication can be easily administered and monitored, and health resources better utilized. "With CCMS, we have a collaborative system that allows different healthcare providers to communicate. We can share key patient information and observations, reduce duplication, focus on the right things and ultimately deliver a more well-rounded care plan for patients," notes Lamont.

Encourages Patient Self-Care

"We believe that by allowing patients access to their personal health records, they are more likely to take better care of

their health. Patients are able to view records such as blood test results and retinal screening results, and be more engaged in the care options available to them," explains Lamont. Caregivers and patients can then work together to prevent serious health issues from escalating, and avert costly treatments and hospital re-admissions.

Improves Mobile Healthcare

Previously, care givers who were not connected to the FP PMS had to record information manually, which resulted in inaccurate and outdated clinical records. With CCMS, care providers working in the community or across multiple sites can keep patients records up to date by accessing the system through a mobile device such as a laptop, tablet or Netbook PC.

"To reduce the number of amputations due to diabetes, our podiatrists travel to various FPs to screen patients' legs. With close to 23,000 patients to be screened, with CCMS we can record and access these results with ease," says Lamont. With the additional insights gleaned from CCMS, Lamont estimates 40 percent of unnecessary amputations can be reduced.

"I've been absolutely delighted to find a suitable solution for the community and the Trust. It is an exciting development for healthcare in New Zealand and, in time, a significant advancement for patient care around the world," says Lamont.

For More Information

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For more information about HSAGlobal products and services, call +64 9 984 1800 or visit the Web site at:

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